

COLLECTING BERYLLIUM STACK FILTER SAMPLES

Purpose This Meteorology and Air Quality Group (MAQ) procedure describes the process used to collect particulate filter samples from sampled beryllium-emitting stacks at Los Alamos National Laboratory (LANL).

Scope This procedure applies to the collection of particulate filter samples and maintenance of sample chain-of-custody for all stacks sampled by MAQ for beryllium at LANL.

In this procedure This procedure addresses the following major topics:

Topic	See Page
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Hazard Control Plan The hazard evaluation associated with this work is documented in Attachment 1: Initial risk = **low**. Residual risk = **minimal**. Work permits required: **none**. First authorization review date is one year from group leader signature below; subsequent authorizations are on file in group office.

Note: This Hazard Control Plan applies to work performed by MAQ personnel only.

Signatures
(continued on
next page)

Prepared by: _____ MAQ Debra Archuleta,	Date: <u>8/12/02</u>
Work authorized by: _____ Jean Dewart, MAQ Acting Group Leader	Date: <u>8/17/02</u>

01/08/03

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General information about this procedure

Signatures (continued)

Approved by: ____ Dave Fuehne, Rad-NESHAP Project Leader	Date: <u>8/16/02</u>
Approved by: ____ Victor Martinez, Be Monitoring Project Leader	Date: <u>8/19/2002</u>
Approved by: ____ Terry Morgan, Quality Assurance Officer	Date: <u>8/19/02</u>

Attachments

This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Hazard Control Plan	2
2	Stack Sample Data Form and Chain of Custody Record	1
3	Example Letter To Analysis Laboratory Requesting Analysis	1

History of revision

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	8/13/99	New document.
1	10/29/99	Revisions to order and wording of steps for sample collection, new format with integrated HCP.
2	8/30/02	Include sample duplicate shipment, return of residual filter portions from the analytical lab, and sample retention policy.

Who requires training to this procedure?

The following personnel require training before implementing this procedure:

- Persons assigned to perform all or part of this procedure

Training method

The training method for this procedure is **on-the-job** training by a previously trained employee and is documented in accordance with the procedure for training (MAQ-024).

General information, continued

- Prerequisites** In addition to training to this procedure, the following training is also required before performing this procedure:
- Beryllium Worker Training for individuals performing work described in the chapter *Collecting beryllium particulate filters*.
 - Site-specific requirements for the Beryllium Technology Facility (BTF)

A “Q” level security clearance is required to perform this procedure.

Definitions specific to this procedure PPE: Personnel Protective Equipment is equipment used to protect the individual from hazards during an operation.

- References** The following documents are referenced in this procedure:
- MAQ-024, “Personnel Training”
 - MAQ-026, “Deficiency Reporting and Correcting”
 - MAQ-124, “Compositing Stack Sample Filters”
 - MST hazard control plan 6-3-141-GEN-2
-

Note Actions specified within this procedure, unless preceded with “should” or “may,” are to be considered mandatory guidance (i.e., “shall”).

Background and overview of stack filter change

Background	Stack sampling for beryllium is performed in accordance with this procedure to meet the requirements of 40 CFR 61, Subpart C. MAQ samples only stack 3-141, ES-1 (FE-57 and FE-58) for beryllium.
Overview of filter change	<p>This procedure describes the three processes required to perform the sample change:</p> <ul style="list-style-type: none">• Preparing forms and sample filters• Removing and replacing sample filters• Completing the required documentation
Frequency of filter change	<p>A stack sampling period is normally a one week period. The start and end times of the period are determined by the actual time of sample filter change. Trained beryllium workers change the stack filter. Extra change cycles may be necessary as part of maintenance or test activities.</p> <p>After an extended holiday, samples may be changed on the morning of the next working day. Such deviations to the sample collection schedule should be coordinated with the facility and MAQ personnel. Other sample change schedules may be arranged for extended holiday periods to meet facility needs.</p>

Worker safety

Performing work safely

DO NOT perform work under conditions you consider unsafe. Before beginning work described in this procedure, review safety needs and requirements, identify hazards, and develop hazard mitigation measures. Be aware that facility configurations and hazards may change between visits. Hazards to assess include, but are not limited to the following:

High noise level -- Personnel collecting the samples will be in a high noise area for a sufficiently short time that protection will not be required under ESH-5 guidelines.

Beryllium hazards -- Beryllium is a toxic metal that is hazardous through inhalation (breathing). Beryllium metal should not be introduced into an open wound. The salts of beryllium should not be in contact with the skin. Be sure to comply with all facility-specific PPE requirements before collecting samples from a beryllium stack.

Extreme weather conditions -- Heavy rains, lightning, temperature extremes, and icy conditions may exist at the sampling site. Personnel must wait until weather conditions are safe before collecting stack samples.

Facility management units -- Work control is the responsibility of the Facility Manager. Obtain approval from facility management before beginning work described in this procedure. Ensure you have completed all facility-specific training requirements (see prerequisite training requirements on page 2).

Preparing, retrieving, and delivering sample filters

Overview

An **MAQ employee** prepares the filter and required documentation, delivers the new filter and documentation to the sample cabinet at the BTF, and removes from the sample cabinet the collected sample filter and associated documentation. An **MAQ employee** also packages the sample for shipping and transports the packaged sample to the BUS-4 shipping office for shipping to the analysis laboratory.

A trained **beryllium worker** changes the filter and places the collected sample filter and the Stack Sample Data Form and Chain of Custody Record in the locked MAQ sample cabinet located outside of the beryllium work area in accordance with the chapter *Collecting beryllium particulate filters* in this procedure.

Required materials and supplies

The following materials and supplies are required:

- Dynaweb DW7301L polypropylene filter (or equivalent)
- Glassine envelopes
- Large and small Ziploc bags
- Stack Sample Data Form and Chain of Custody Records (Attachment 2)
- Clipboard
- Plastic box in the MAQ sample cabinet at the BTF for storing needed tools and supplies – labeled “Tools and Supplies”
- Plastic sample box in the MAQ sample cabinet at the BTF for storing filters to be installed in the sampling system – labeled “Filter to be Installed”
- Plastic sample box in the MAQ sample cabinet at the BTF for storing filters removed from the sampling system – labeled “Collected Sample”
- Shipping manifest for weekly shipment of the beryllium sample filter to an analytical laboratory (see MAQ-124, Attachment 4)
- Letter to analysis laboratory requesting the analysis (Attachment 3)

Steps to prepare filters

To prepare the DYNAREB filters, perform the following steps:

Step	Action
Preparing new filter and blanks	
1	Prepare a Stack Sample Data Form and Chain of Custody Record (Attachment 2) by placing a bar code sticker on the form and recording the sampling facility identification (03014101).

Steps continued on next page.

Preparing, retrieving, and delivering sample filters, cont.

Step	Action
2	Prepare another Stack Sample Data Form and Chain of Custody Record (Attachment 2) for two blank filters by placing a bar code sticker on the form and recording “75000111” (trip blank) and “75000113” (matrix blank) for the sample identifiers.
3	Label the Dynaweb filter for the sampled stack with the location (“03014101”) and dates of the sampling period (mm/dd - dd/yy). NOTE: The start of the sampling period is at least one week ahead of the day the filters are labeled.
4	Label one blank filter (to accompany samples as a trip blank): “75000111” mm/dd – dd/yy Label a second blank (to remain in office to be shipped with samples as a matrix blank): “75000113” mm/dd – dd/yy
5	Place the sample filter in a clean glassine envelope and place the glassine envelope in a small, clean (new) Ziploc bag.
6	Place the Ziploc bag containing the glassine envelope into a larger Ziploc bag.
7	Place the two labeled blank filters in individual glassine envelopes. Place the trip blank glassine envelope in a small, clean (new) Ziploc bag. Ensure this blank accompanies the sample to the BTF and returns to the MAQ office in White Rock. Leave the matrix blank in the office.
8	Every month, select one previously analyzed residual half-filter that has been returned from the analytical laboratory (see chapter <i>Sample return, archiving, and retention</i>) to be sent back as a duplicate. If a filter in the past quarter has been “tagged” for duplicate analysis during data review, use that filter for the duplicate sample. Otherwise, use a sample filter from 6 to 8 months prior to the current sample period. Leave this duplicate sample in the locked cabinet at TA-54-1001 until the morning of the Be pickup/dropoff, then add it to the labeled QC ziplock bag.
9	When submitting the duplicate sample, use the special form xxx (Attachment 2). Add the original RADAIR number and “03014101” to this QC duplicate chain-of-custody form. On the memo to the analytical laboratory, note that “there is one half filter being resubmitted as a duplicate” and include the original RADAIR number and “03014101.”
10	Before leaving the office, collect the Ziplock bag that contains the trip and matrix blanks for the sample being removed.

Steps continued on next page.

Preparing, retrieving, and delivering sample filters, cont.

Retrieving and delivering sample filters	
Step	Action
11	Drive to the BTF at a time after the filter change-out has been performed.
12	Unlock the MAQ sample cabinet and remove the "Collected Sample" box containing the collected sample and the Stack Sample Data Form and Chain of Custody Record.
13	Open the sample box and remove the Ziplock bag containing the collected stack sample filter.
14	Place the Ziplock bag containing the collected sample into a second, larger Ziplock bag. Add the two blank samples (brought from the office) to the larger Ziploc bag.
15	Seal this Ziplock bag with security tape and initial and date the tape.
16	Remove the Stack Sample Data Form and Chain of Custody Record from the "Collected Sample" box.
17	Sign the "Received by" section of the Stack Sample Data Form and Chain of Custody Record and record the date and time sample was <u>removed</u> from the MAQ sample cabinet.
18	Remove empty Ziplock bag (containing glassine envelope) and the Stack Sample Data Form and Chain of Custody Record from the "Filter to be Installed" box and place them in the now-empty "Collected Sample" box.
19	Place Stack Sample Data Form and Chain of Custody Record and the Ziploc bag containing the new filter to be installed into the "Filter to be Installed" box.
20	Replace the "Filter to be Installed" and "Collected Sample" boxes into the MAQ sample cabinet.
21	Verify that necessary tools and supplies are ready and in the "Tools and Supplies" box for the next sample change-out. Replace as necessary.
22	Close and lock the sample cabinet.
Shipping the sample	
21	Transport the sample, blank filters, paperwork, and the duplicate (once a month) to the BUS-4 shipping office for Federal Express pickup.
22	Complete the "Relinquished by" section of the Stack Sample Data Form and Chain of Custody Record. Enter "FedEx" in the "Received by" section (optional: and next "Relinquished by" box).
23	Make a copy of the Stack Sample Data Form and Chain of Custody Record for MAQ records. Send the original to the analytical laboratory (they will return it in the data package with the results).

Steps continued on next page.

Preparing, retrieving, and delivering sample filters, cont.

Step	Action
24	Upon return, combine both the matrix and trip blank filters (for the filter left at the BTF) in the trip blank's Ziploc bag. Store this bag in the cabinet at TA-54-1001 to await shipment on the following week.

Collecting beryllium particulate filters

Overview A trained **beryllium worker** changes the filters, normally on Thursday of each week. Extra change cycles may be necessary as part of maintenance or test activities. Before collecting samples, the equipment listed below must be collected.

Hazard control plan The Hazard Control Plan (Attachment 1) covers the work described in this chapter when MAQ personnel perform the work. (The work in this chapter must be performed by trained Be workers and MAQ personnel are not currently trained as Be workers.) Work hazard analysis and authorization for BTF personnel to perform work described in this chapter are BTF management responsibilities (see MST hazard control plan 6-3-141-GEN-2).

Required tools and supplies The tools and supplies listed below are maintained in three plastic boxes, which are stored in the locked MAQ sample cabinet at the BTF. MAQ personnel replenish and maintain the tools and supplies in these boxes. Using tools and supplies from these boxes is necessary to ensure that no materials that have been inside the beryllium facility are used to collect samples, which could possibly result in contamination.

“Tools and Supplies” box:

- small Ziploc bags
- gloves
- ear plugs (hearing protection)
- tweezers
- pre-moistened Lab Wipers
- one spare Parker part number 229 (or equivalent), 2.362 in. inside diameter “O” rings (for filter holders)
- list of sampling system air flow acceptable ranges

“Filter to be Installed” box:

- Prepared DYNAWEB filter
- Stack Sample Data Form and Chain of Custody Record prepared for filter to be installed

“Collected Sample” box:

- Stack Sample Data Form and Chain of Custody Record for filter to be collected (installed in sampling system previous week)
- After filter collection, the sample filter removed from the sampling system is left in this box for MAQ pick up

Collecting beryllium particulate filters, continued

Steps to exchange filters

To change a DYNAREB stack sample filter, perform the following steps:

Step	Action
1	If you have been inside a beryllium area, wash your hands and remove all potentially contaminated PPE before performing the sample change-out.
2	Before continuing with sample collection activities, see the chapter <i>Worker safety</i> in this procedure and review safety needs and requirements. <u>DO NOT</u> perform work under conditions you consider unsafe. When entering the sample area, assess for additional hazards not addressed by the applicable hazard control plan. If additional hazards are noticed, contact your supervisor.
3	Insert ear plugs or don other hearing protection device. Note: Hearing protection is highly <u>recommended</u> , but <u>not required</u> unless you will be in the work area longer than two hours.
4	Open the door on the pump weatherhouse. <ul style="list-style-type: none"> • Verify operation of the sampling system. • Is the sample line connected? • Verify that the rotometer reading (take reading at the center of the suspended ball) is within $\pm 1/4$ ball diameter of the value on the tag attached to the line. Make no adjustments to the flow.
Complete the Stack Sample Data Form and Chain of Custody Record NOTE: These steps 5 and 6 may be performed at step 21, after the sample is collected, at the discretion of the sampler.	
5	Take the Stack Sample Data Form and Chain of Custody Record for the <u>collected</u> sample from the “Collected Sample” box and: <ul style="list-style-type: none"> • Check the appropriate box in the “Sample System Condition” section of the Stack Sample Data Form and Chain of Custody Record (Attachment 2). <ul style="list-style-type: none"> • If the sample system air flow or condition is <u>unsatisfactory</u>, record a description of the problem in the “Comments” section and notify the facility manager and MAQ (5-8855). [MAQ will initiate a deficiency report according to MAQ-026.] • record the sample period stop date and time • sign the form as the person collecting the sample • sign, date, and time the “Relinquished by” section • enter “MAQ locked sample cabinet” in the “Received by” section • return the form to the “Collected Sample” box.

Steps continued on next page.

Collecting beryllium particulate filters, continued

Step	Action
6	Take the Stack Sample Data Form and Chain of Custody Record for the <u>new</u> sample from the “Filter to be Installed” box and: <ul style="list-style-type: none"> record the sample period start date and time sign the form as the person installing the sample return the form to the “Filter to be Installed” box.
Change the sample	
7	Put on a pair of gloves obtained from the “Tools and Supplies” box in the sample cabinet. Gloves are the minimum required PPE for performing sample filter changes. The facility may impose additional PPE requirements for this work.
8	Retrieve the empty glassine envelope, small Ziplock bag and the tweezers from the “Collected Sample” box in the sample cabinet.
9	Clean the tweezers using a pre-moistened Lab Wiper from the “Tools and Supplies” box. Set the used Lab Wiper aside.
10	Open the stack filter holder. Remove the filter using the tweezers. Place the removed filter in a glassine envelope then place the envelope in the small Ziplock bag.
11	Place the Ziploc bag containing the collected sample filter in a larger Ziploc bag obtained from the “Collected Sample” box. Return the bag to the “Collected Sample” box.
12	Clean the tweezers using a pre-moistened Lab Wiper from the “Tools and Supplies” box.
13	Examine the filter holder for the presence and condition of the “O” ring. Replace the “O” ring if it is missing, damaged, or deteriorated.
14	Take the used Lab Wipers (from steps 9 and 12) and remove the gloves by turning them inside out while holding the used Lab Wipers. Set the used gloves aside.
15	Put on a new pair of clean gloves.
16	Using the tweezers to hold the filter, remove the new DYNWEB filter from the “Filter to be Installed” box, the Ziploc bags, and the glassine envelope.
17	Place this new filter in the sampling system filter holder. Reassemble the sample filter holder. Hand-tighten the assembly.
18	Clean the tweezers using a pre-moistened Lab Wiper from the “Tools and Supplies” box.
19	Take the used Lab Wiper and remove the gloves by turning them inside out while holding the used Lab Wiper. Set the used gloves aside.

Steps continued on next page.

Collecting beryllium particulate filters, continued

Step	Action
Check system operation, complete form, collect waste	
20	Repeat step 4 to verify operation and proper flow range of the sampling system. If the sample system air flow or condition is unsatisfactory, indicate the problem on the form and notify the facility manager and MAQ (5-8855).
21	If not already completed, perform steps 5 and 6 to record all required info on each Stack Sample Data Form and Chain of Custody Record. Ensure the forms are properly signed.
22	Take the 2 pairs of used gloves out of the cabinet. Lock the sample cabinet before leaving the area. Dispose of the used gloves in the Be waste receptacle inside the Be facility. <u>DO NOT ENTER</u> the beryllium facility with the stack samples for any reason.

Note on sample transfer

MAQ personnel will transfer the Stack Sample Data Form and Chain of Custody Record paperwork and the now-empty glassine envelope and Ziplock bags from the “Filter to be Installed” box to the “Collected Sample” box when they deliver the new weekly sample and pick up the collected sample for shipping, as described in the chapter *Preparing, retrieving, and delivering sample filters*.

Sample return, archiving and retention

Sample return from analytical lab

Per requirements in MAQ-SOW-19, only one half of each sample filter is dissolved and chemically analyzed for beryllium. The remaining half is to be retained for future use. At the end of each calendar quarter, the analytical laboratory will return all residual sample material to MAQ under full chain-of-custody.

Sample archiving

Store sample residuals at the MAQ TA-54 facility in their original glassine envelope and small ziplock bags. These will be available for monthly duplicate sample shipment as described in the chapter *Preparing, retrieving, and delivering sample filters*.

Sample retention

Sample residuals will remain indefinitely in the MAQ archive. Sample blanks will be kept for a period of six months after their initial analysis. Following that period, keep indefinitely only blanks used in the months of March and September, and all others may be disposed of as obsolete.

Records resulting from this procedure

Records

The following records generated as a result of this procedure are to be submitted to the records coordinator **within two months of generation**:

- Stack Sample Data Form and Chain of Custody Record (Attachment 2)

HAZARD CONTROL PLAN

1. The work to be performed is described in this procedure.

“Collecting Beryllium Stack Filter Samples”

2. Describe potential hazards associated with the work (use continuation page if needed).

- A. Beryllium exposure
- B. Extreme weather conditions
- C. High noise level

3. For each hazard, list the likelihood and severity, and the resulting initial risk level (before any work controls are applied, as determined according to LIR300-00-01, section 7.2)

- A. Beryllium exposure: IMPROBABLE / CRITICAL = LOW
- B. Extreme weather conditions: OCCASIONAL / NEGLIGIBLE = MINIMAL
- C. High noise level (measured by Kay Karnes of ESH-3 at 90 dB, which requires ear protection if over 2 hours exposure): IMPROBABLE / CRITICAL = LOW

Overall *initial* risk: ☐ Minimal ☒ Low ☐ Medium ☐ High

4. Applicable Laboratory, facility, or activity operational requirements directly related to the work:

☐ None ☒ List: Work Permits required? ☒ No ☐ List:

Facility site-specific training.

HAZARD CONTROL PLAN, continued

5. Describe how the hazards listed above will be mitigated (e.g., safety equipment, administrative controls, etc.):

A. Beryllium exposure: Handle stack filters using appropriate PPE, gloves, forcep, ziploc bags.

B. Extreme weather conditions: Observation of weather on day of sample removal for heavy rains, lightning, temperature extremes, and icy conditions. Wait until weather conditions are safe before collecting stack samples.

C. High noise level: Personnel will be in noise area for very short period of time and protection is not required under ESH-5 guidelines. However, personnel will be asked to use hearing protection even for short visits.

6. Knowledge, skills, abilities, and training necessary to safely perform this work (check one or both):



Group-level orientation (per MAQ-032) and training to this procedure.



Other → See training prerequisites on procedure page 3. Any additional describe here:

7. Any wastes and/or residual materials? (check one) ☐ None ☒ List:

Gloves, ziploc bags, Lab Wipers – these items are given to facility personnel and disposed by facility personnel. (A formal ruling regarding whether these items are waste was requested by Alice Barr.)

8. Considering the administrative and engineering controls to be used, the *residual* risk level (as determined according to LIR300-00-01, section 7.3.3) is (check one):



Minimal



Low



Medium (requires approval by Division Director)

9. Emergency actions to take in event of control failures or abnormal operation (check one):



None



List:

Signature of preparer of this HCP: This HCP was prepared by a knowledgeable individual and reviewed in accordance with requirements in LIR 300-00-01 and LIR 300-00-02.

Preparer(s) signature(s)

Name(s) (print)

/Position

Date

Signature by group leader on procedure title page signifies authorization to perform work for personnel properly trained to this procedure. This authorization will be renewed annually and documented in MAQ records.

Controlled copies are considered authorized. Work will be performed to controlled copies only. This plan and procedure will be revised according to MAQ-022 and distributed according to MAQ-030.

Meteorology and Air Quality

Stack Sample Data Form and Chain-of-Custody Record

This form is from MAQ-135

Facility Name: TA-3, BLDG 141, STACK SAMPLE
Analysis Requested: Be

Sample System Inspection

(Place a check (ö) in box to indicate normal operation/conditions. Record sample flow in lpm/units)

Place Barcode
Tracking Sticker Here

Sample Identification TA – Bldg – ES	Date Start	Time Start	Date Stop	Time Stop	Matrix	Container Type	Sample Flow	stack Fan	Filter House	Sample Line	Stack Con'd	Timer reading	Remarks
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							

Duplicate Sample

					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							

Sample installed by (print and sign): _____ Sample collected by (print and sign): _____

Comments:

Relinquished by (print and sign)	Date Time	Relinquished by (print and sign)	Date Time	Relinquished by (print and sign)	Date Time	Relinquished by (print and sign)	Date Time
Received by (print and sign)		Received by (print and sign)		Received by (print and sign)		Received by (print and sign)	



Meteorology and Air Quality
Stack Sample Data Form and Chain-of-Custody Record

This form is from MAQ-135

Facility Name: TA-3, BLDG 141, STACK SAMPLE Analysis Requested: Be	Sample System Inspection (Place a check (✓) in box to indicate normal operation/conditions. Record sample flow in lpm/units)	Place Barcode Tracking Sticker Here
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Sample Identification TA – Bldg – ES	Date Start	Time Start	Date Stop	Time Stop	Matrix	Container Type	Sample Flow	Stack Fan	Filter House	Sample Line	Stack Con'd	Timer reading	Remarks
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							

Duplicate Sample													
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							
					Filter	Glassine Envelope							

Sample installed by (print and sign): _____ Sample collected by (print and sign): _____
 Comments: _____

Relinquished by (print and sign)	Date	Relinquished by (print and sign)	Date	Relinquished by (print and sign)	Date	Relinquished by (print and sign)	Date
	Time		Time		Time		Time

Received by (print and sign)		Received by (print and sign)		Received by (print and sign)		Received by (print and sign)	

EXAMPLE LETTER TO ANALYSIS LABORATORY REQUESTING ANALYSIS



RISK REDUCTION & ENVIRONMENTAL STEWARDSHIP DIVISION

Meteorology & Air Quality Group

P.O. Box 1663, MS J978

Los Alamos, New Mexico 87545

(505) 665-8855/Fax: (505) 665-8858

Date:

Refer to:

Dr. Steven Fry
Paragon Analytics, Inc.
225 Commerce Drive
Fort Collins, CO 80524

SAMPLE SHIPMENT - Dynaweb Air Samples [complete set R02xxxx]

Dear Dr. Fry:

Enclosed with this letter are 3 dynaweb air filter samples from LANL stack 03014101 for which we require analyses under our purchase order number **41454-001-02-8A**. *Please note that this is a new PR number for FY 02.* Standard turnaround time (per our SOW) is requested. To summarize:

- | | |
|-------------------|--|
| Applicable SOWs | <ul style="list-style-type: none">• LANL/ESH-17/GEN, 01/01/2000 version; and• LANL/ESH-17/20, 01/01/2000 version; |
| Sample Types: | <ul style="list-style-type: none">• The filter material is dynaweb.• There is one stack sample and two blanks in each weekly set numbered:
R0xxxxx-03014101
R0xxxxx-75000111
R0xxxxx-75000113 |
| Duplicate Sample: | <ul style="list-style-type: none">• There is no duplicate sample submitted with this week's samples. |
| Analysis | <ul style="list-style-type: none">• Total beryllium |
| Requirements: | <ul style="list-style-type: none">• Detection limit requirements are shown in the SOW. |
| Screening Data: | <ul style="list-style-type: none">• No radioactive materials are processed in this ventilation system |

If you require further information please contact me at (505) 665-XXXX during working hours, or Ernie Gladney at (505) 667-0295 during working hours or at (505) 672-1029 during off hours.

Sincerely

RRES-MAQ

cjm:ab

Att: a/s